



Compliance Testing, LLC

Previously Flom Test Lab

EMI, EMC, RF Testing Experts Since 1963

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Test Report

Prepared for: Time Keeping Systems Inc.

Model: Duress Device 10

Description: Wireless positioning and duress alarm for prison guards

Serial Number: N/A

FCC ID: MTD-0004

To

FCC Part 1.1310

Date of Issue: January 29, 2018

On the behalf of the applicant:

**Time Keeping Systems Inc.
30700 Bainbridge Rd
Cleveland, OH 44139**

Attention of:

**Dean Chriss, Engineering Consultant
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**Prepared By
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Project No: p1810006**

**Kenneth Lee
Project Test Engineer**

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Test Report Revision History

Revision	Date	Revised By	Reason for Revision
1.0	January 16, 2018	Kenneth Lee	Original Document
2.0	January 29, 2018	Kenneth Lee	Updated Max Power used in calculation to match manufacturer stated worst case.



ILAC / A2LA

Compliance Testing, LLC, has been accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAF Communiqué dated January 2009)

The tests results contained within this test report all fall within our scope of accreditation, unless below

Please refer to <http://www.compliancetesting.com/labscope.html> for current scope of accreditation.

Testing Certificate Number: **2152.01**



FCC Site Reg. #349717

IC Site Reg. #2044A-2

Non-accredited tests contained in this report:

N/A

EUT Description

Model: Duress Device 10

Description: Wirelss positioning and duress alarm for prison guards

Firmware: N/A

Software: N/A

Serial Number: N/A

Additional Information: The EUT implements a 3.3 dBi antenna.



SAR Exclusion

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by:

$$\frac{[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})]}{[\sqrt{f(\text{GHz})}]} \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR,}^{25} \text{ where}$$

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation²⁶
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

The test exclusions are applicable only when the minimum *test separation distance* is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum *test separation distance* is < 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

Max Power in mW = 501 mW

Antenna Gain = 3.3 dB

Power with antenna gain = 1070 mW

Duty Cycle Correction = $\frac{263.5\mu s}{100\text{ ms}} = 0.002635 = 0.2635\%$

Corrected Power = 2.81945 mW

Min. Test Separation Distance = 1 mm

Frequency of Operation = 2402 MHz

$$\frac{2.81945\text{ mW}}{5\text{ mm}} \times \sqrt{2.402} = 0.87393854$$

END OF TEST REPORT